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# PLAIN RULES

FOR THE

# RESTORATION OF PERSONS APPARENTLY DEAD

FROM

# DROWNING,

AS TAUGHT UNDER THE AUSPICES OF

THE METROPOLITAN BOARD OF HEALTH OF THE CITY OF NEW YORK.


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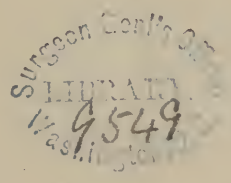
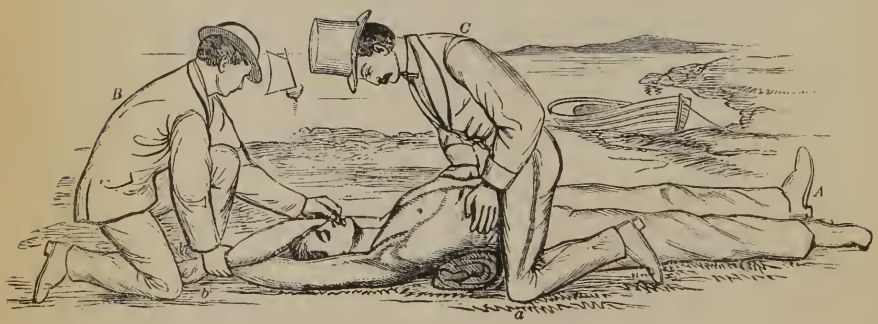


FIG. 1.

MODE OF FORCING AND DRAINING OFF WATER AND OTHER ACCUMULATIONS FROM THE STOMACH, THROAT, AND MOUTH, ACCORDING TO RULE 2, PREPARATORY TO PERFORMING ARTIFICIAL BREATHING.

*a*, Patient's clothing rolled tightly.

FIG. 2.




MODE OF PERFORMING ARTIFICIAL BREATHING ACCORDING TO RULES 3 AND 4.

*A*, Posture of patient according to Rule 3—arms extended backward, and ribs thrown prominently forward by roll of clothing (*a*) beneath back.

*B*, Assistant holding tongue, so as to prevent it falling back into the throat and blocking up air-passages to chest. By using handkerchief or similar article, the tongue cannot slip from the grasp. *b*, Right hand of assistant grasping both wrists of patient, keeping arms forcibly extended backwards. If not available, the assistant may be dispensed with.

*C*, Operator forcing out of chest all foul air, preparatory to the *sudden* letting-go, which compels an inrush of fresh air, *on the principle of the ordinary bellows*. The operator may, if he choose, kneel beside the patient, or in case of a child, where little force is required, may conduct the process in any attitude most convenient.

## TO RESTORE PERSONS APPARENTLY DEAD FROM DROWNING.

THE DIRECT METHOD OF PROF. BENJAMIN HOWARD, OF NEW YORK,

*As taught under the auspices of the* METROPOLITAN BOARD OF HEALTH OF THE CITY OF NEW YORK.

RULE 1.—*Unless in danger of freezing, never move the patient from the spot where first rescued, nor allow bystanders to screen off the fresh air, but* INSTANTLY *wipe clean the mouth and nostrils, rip and remove all clothing to a little below the waist,* RAPIDLY *rub dry the exposed part, and give two quick, smarting slaps on the stomach with your open hand.*

If this does not succeed immediately, proceed according to the following rules to perform artificial breathing:

RULE 2.—*Turn the patient on his face, a large bundle of tightly rolled clothing being placed beneath his stomach, and press heavily over it upon the spine for half a minute.*

RULE 3.—*Turn the patient quickly again on his back, the roll of clothing being so placed beneath it as to make the short ribs bulge prominently forward, and raise them a little higher than the level of the mouth. Let some bystander hold the tip of the tongue out of one corner of the mouth with a dry handkerchief, and hold both hands of the patient together, the arms being stretched forcibly back above the head.*

RULE 4.—*Kneel astride the patient's hips, and with your hands resting on his stomach, spread out your fingers so that you can grasp the waist about the short ribs. Now, throw all your weight steadily forward upon your hands, while you at the same time squeeze the ribs deeply, as if you wished to force everything in the chest upwards out of the mouth. Continue this while you can slowly count*—ONE,—TWO,—THREE;—*then* SUDDENLY *let go, with a final push, which*

*springs you back to your first kneeling position. Remain erect upon your knees while you can count*—ONE,—TWO;—*then throw your weight forward again as before, repeating the entire motions—at first about four or five times a minute, increasing the rate gradually to about fifteen times a minute, and continuing with the same regularity of time and motion as is observed in the natural breathing which you are imitating.*

RULE 5.—*Continue this treatment, though apparently unsuccessful, for two hours, until the patient begins to breathe; and for a while after this help him by well-timed pressure to deepen his first gasps into full, deep breaths; while the friction of the limbs, which should if possible have been kept up during the entire process, is now further increased.*

RULE 6.—AFTER-TREATMENT—EXTERNALLY. *As soon as the breathing has become perfectly natural, strip the patient rapidly and completely. Enwrap him in blankets only. Put him in bed in a room comfortably warm, but with a free circulation of* FRESH AIR, *and except for the administration of internal treatment, let him have* PERFECT REST.

INTERNALLY. *Give a little hot brandy and water, or other stimulant at hand, every ten or fifteen minutes for the first hour, and as often thereafter as may seem expedient.*

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## THE PHILOSOPHY OF THE TREATMENT.

Death from drowning is caused not because of the presence of water as such, but because of the absence of fresh air from the chest.

Whether excluded by water, as in drowning; by a cord closing the windpipe, as in hanging; by dense smoke, as in a burning building; by foul gas, as in an old well, or from escape of ordinary burning gas into a close room; whether by burying the face in a soft pillow, or by a piece of tough meat lodged in the throat, corking up the entrance to the windpipe—in all these cases the immediate cause of death is one and the same.

The BREATH is the LIFE. Let it be shut out from the chest, or anything else be entirely substituted for it, and *suffocation* at once begins, and this continued always ends in *death*.

To avert death, then, and reawaken life in all these cases, you must not begin by giving a little stimulus, or "something reviving,"

as it is called; not by applying hot blankets, nor putting the patient into a nice warm bed. The first and instant necessity is, if possible, to GIVE *breath* until the patient is sufficiently recovered to be able to TAKE *breath* for himself. This alone can start life again, and maintain it in action. If the draft and door of a stove is long kept tightly closed the fire dies away to an interior spark. If in this condition you begin to put in more coal, your disturbance is very likely to completely extinguish the remaining spark.

To apply heat in any form to the *outside* around the stove would be simply absurd and ridiculous. If, on the contrary, you should open the draft, rake away the ashes and dead coals from the mouth of the draft up to the interior spark, open the damper and set a current of air in motion through the stove, or in a great emergency add a few gentle steady puffs from the bellows, you would be adopting what all experience proves to be the most sensible and only successful way to rekindle your fire to brightness and warmth.

The relation of fresh air to the burning of a fire is precisely what it is to the reviving and continuance of life. Therefore, if the friction, the breeze, and the slap upon the nerves over the stomach, as directed in *Rule* 1, fail to startle and revive the patient, then it is necessary to at once see that the track from the mouth to the chest is clear, so that the passage of air to the chest be not obstructed.

By following the directions of *Rule* 2, fluids accumulated in the stomach, chest, or throat are removed. The stomach, at a greater elevation than any other part of the track, is pressed between the roll of clothing and the spine, whence water or other accumulations have a complete *drainage* down to and out of the mouth, which is the lowest point.

The next step is to induce air to enter the chest by what is called artificial breathing or respiration. *Rule* 3 prevents the tongue tumbling back into the throat, to choke it up as by a piece of dead meat, and provides for its tip being kept out and to one side of the mouth. Also by keeping the arms well stretched back, helps to keep the chest somewhat expanded.

The actual breathing is effected by the directions in *Rule* 4. In order to understand this, it must be remembered that the chest containing the elastic lungs is an open-work, ribbed, bony box, which above the bottom of the breast-bone is scarcely movable, except by one's own will, the ribs being fastened both in front to the breast-bone and behind to the spine. The ribs below the breast-bone, known as the short ribs, are fastened only behind to the spine; they are very elastic and loose, and thus are called the floating ribs.

It is this enables any foolish woman to diminish the size of her waist to any standard fashion may demand.

All the breathing necessary to life can be performed by this part of the chest alone, as is generally the case during sleep.

When the pressure is made upon this part of the chest, then, as directed in *Rule* 4, the cavity of the chest is greatly diminished; what air is in it is partially forced out; and on suddenly letting go, the natural elasticity of these semi-cartilaginous ribs compels them to spring back to their natural position. This would create a vacuum, but that the fresh air is thus compelled to rush in through the mouth to occupy the otherwise vacant space.

This action, repeated as directed, compels successive volumes of fresh air to enter the chest just as occurs in natural breathing, and so it is called and constitutes "artificial breathing" or "artificial respiration."

The first returning natural gasps are apt to be irregular, and if the artificial breathing be continued regardless of them, the motions of the operator may actually interfere with and interrupt them; therefore, as directed in *Rule* 5, let your motions be so timed to the natural effort of the patient as simply to aid and deepen his breathing, which is as yet imperfect and insufficient.

With life comes heat, but the latter may be greatly favored by following the direction in *Rule* 6. *Warmth*, *rest* and *fresh air* are now to be regarded as the important means of completing the resuscitation already begun.

These Rules, except *Rule* 2, are equally applicable in apparent death from suffocation from any cause whatever, whether from hanging, chloroform, foul gases or in still-birth. In the latter case, the lungs never having been expanded, it is better to combine forcible inflation by the mouth alternately with the forcible expiration by pressure.

To practice forcible inflation, the mouth being well cleared of mucus, close the nostrils with one hand while with the other you open the mouth widely by pressing upon the lower front teeth.

The Larynx, known as Adam's Apple, is gently pressed upon so as to prevent air passing behind it into the stomach; and then having taken a very full breath, fit your lips to those of the patient and blow with a steady force, *nearly* emptying your lungs at one effort; then compress as directed in regular alternation.

In death from either of the above-mentioned causes, the machinery of the human system is in no part damaged nor broken; the engine has only ceased moving, the fires of life being put out.

It is this which allows a hope of resuscitation we cannot cherish in death from other causes. In some of these cases, so long does the vital spark linger after all signs of life have ceased, that recoveries are recorded from a few minutes to two or three hours after the patient, but for artificial respiration, would have been abandoned for burial. Since a few familiar lectures on the subject of resuscitation were given to some of the policemen of New York, the resuscitation of drowned persons by them has been frequently reported.

By an hour's practice upon a friend, any reader may acquire as much skill for such emergencies as a physician need possess, and at this small cost may perhaps obtain the life-long satisfaction of having restored one or more valuable lives otherwise irrecoverably lost.

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## By GEO. M. BEARD. A.M., M.D.

LECTURER ON NERVOUS DISEASES IN THE UNIVERSITY OF NEW YORK, MEMBER OF THE NEW YORK COUNTY MEDICAL SOCIETY; ONE OF THE AUTHORS OF "THE MEDICAL USE OF ELECTRICITY," ETC.

The Publishers present "OUR HOME PHYSICIAN" with the assurance that it is the most important and valuable Medical Guide ever offered to the American public. To this admirable work our author has given careful study, investigation and experience, and now presents it to the public as the result of a large and extended practice in New York City. From the author's preface we learn:—

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"This work not only includes all that has ever been attempted in similar works, but also several hundred new remedies, new systems of treatment, new diseases and new subjects in the department of health that have never yet appeared in any work designed for the people. There are yet among the people those who have a blind faith in some school or exclusive system of treatment; to all such let me say that the wise physician of our time belongs to no "school," no "ism," no "pathy," but uses for his patients all things which have proved to be beneficial. On this principle this work is based. The best physicians of our day are not narrow or bigoted, as some suppose, but are the most liberal and progressive of men. I have written in the work just what I say every day to my patients, in my popular essays, and in my lectures before lyceums and colleges. I have here said just what your family physician would tell you if he had the time and occasion to explain the different diseases, their symptoms and treatments. My aim has also been to make the work so clear that the wayfaring man might not err therein, and yet so thorough and exhaustive that the educated physician should find in it much to perfect his knowledge and refresh his memory."

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